In the Specification:

- Please amend the paragraph starting on page 8, line 18, as follows:

The IR encoder 107 may employ various encoding schemes, including a Pulse Position Modulation (PPM) encoding scheme. PPM encoding is achieved by defining a data symbol duration (D_t) and subdividing D_t into a set of equal time slices called "chips." One of a plurality of possible bit combinations is represented by each chip position within a data symbol. Each chip has a duration of C_t given by the formula:

$$C_t = D_t/\text{Base},$$

where "Base" equals the chips or number of pulse positions in each data symbol. The Base for IrDA PPM 4.0 Mb/s systems is defined as four, and the resulting modulation scheme is called "four pulse position modulation" (4PPM). Further details regarding 4PPM data encoding and signaling rate is specified at page 14 of the *IrDA Serial version 1.2 Infrared Physical Layer Specification* (IrDA reference).

- Please amend the paragraph starting on page 9, line 6, as follows:

FIG. 2 is an exemplary diagram of an input interface optical port 150 of an IR receiver 117 capable of being implemented in accordance with the present invention. The illustration is provided for definitional purposes. An optical axis 152 of the port 150 is chosen to be normal to the surface that contains the optical port 150. A center 154 of the optical port 150 is usually used as the reference point, and is located where the optical

~~access~~ axis 152 exits the port 150. Angular range of an optical port is defined with reference to a spherical coordinate system having a radial distance R, angular coordinates that are relative to a defined ~~access~~ axis, and distance D along the X axis. The spherical coordinate system axis is normal to the emitting or receiving surface of the optical port 150 and intersects the optical port at its center 154. Thus, the angular range of an optical port 150 as illustrated is a cone whose apex is at the intersection of the optical axis 152 and the perimeter surface of the optical port 150.

- Please amend the paragraph starting on page 11, line 8, as follows:

Although the IrDA IrLPA protocol defines serial infrared links would should be able to support the length between the two nodes of at least one meter, the conventional low cost optical electric technology optical length cannot obtain accurate free space optical communications at four Mbps rate at that distance and are limited to a range of about one foot. The range at that rate is limited by low sensitivity and low signal-to-noise ratio of the IR Receiver and by the limited amount of optical power of the transmitter. Typical IR Receivers have a single photo sensor in their active input interface optical port detector which senses all incoming IR light which is in a specified solid angle. As noted above, some of the incoming light may come from the accompanying IR Transmitter, but some light may come from ambient sources, such as sunlight or light bulbs. The undesired light will lower the signal-to-noise ratio of the IR Receiver that is used for optical communication.

- Please amend the paragraph starting on page 14, line 4, as follows:

FIG. 5 is a schematic diagram providing exemplary details of the infrared communication system of FIG. 1. The output signal from each photo-sensor 501, 503 is amplified by programmable gain circuits (~~GRC~~ PGC) 505 and 519, respectively. The amount of gain can be dynamically adjusted by a photo-sensor selection control circuit 511. After amplification, the photo-sensor signal is converted from an analog signal to a digital signal via an analog to digital converter 507 or ~~514~~ 517. The photo-sensor selection control circuit 511 examines each digitized photo-sensor signal to determine if it meets the predetermined criteria for pulse width and pulse frequency. If the signal does not meet the predetermined criteria, then the signal is most likely noise and is gated via gating circuits 509 or 515 by setting it to zero. The final output signal comprises a summation of signals from one or more qualified photo-sensor signals. The summation process is performed by a summing circuit 513, thus removing spurious signals which would only contribute to the noise in the system.

- Please amend the paragraph starting on page 16, line 3, as follows:

FIG. 4B is an alternate embodiment of a photo-sensor array according to the present invention. More specifically, a two-dimensional photo-sensor array 305 that receives optical signals from a light source is illustrated. A first plurality of ~~horizontally~~ vertically arranged photo-sensors 307 is coupled with a second plurality of ~~vertically~~ horizontally arranged photo-sensors 309. The present embodiment functions as previously

referenced in FIG. 4A, and may permit a greater degree of misalignment between the IR receiver and transmitter.